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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,406	03/26/2004	Nobuyuki Takase	3599-000004/CO	1285
27572	7590	11/01/2006		
HARNES, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			EXAMINER MORILLO, JANEL COMBS	
			ART UNIT	PAPER NUMBER
			1742	

DATE MAILED: 11/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/812,406	TAKASE ET AL.	
	Examiner	Art Unit	
	Janelle Combs-Morillo	1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/4/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 12, 2006 has been entered.

Claim Objections

2. Claim 2 is objected to because of the following informalities: said claim contains 2 (presumably maximum) values of Mg: 0.37 and 0.39. In a telephone conversation with applicant's attorney Bryant Wade on Wednesday October 25, 2006, it was confirmed that applicant intended said range to refer to 0.39% Mg maximum. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 09-176769A (JP'769).

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JP'769 teaches an aluminum alloy for extrusion molding comprising (in wt%): 3.0-6.0% Si, 0.1-1.0% Mn, 0.4-1.0% Mg, optionally one or more from: 0.15-2.0% Cu, 0.05-0.30% Cr, 0.1-1.0% Fe, 0.01-0.10% Ti, and typically 0.00-0.01% Zn (see examples Table 2-1), which overlaps the instant ranges of Si, Cr, Fe, and Zn, and touches the boundary/is a close approximation of the presently claimed maximums of Mn, Cu, and Mg.

Further concerning the minimum range of Mg taught by JP'769 of 0.4% does not fall within the presently claimed maximum of 0.39% Mg, a *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). Because 0.4% Mg is held to be close enough that one skilled in the art would have expected them to have the same properties as 0.39% Mg, it is held that JP'769 has created a *prima facie* case of obviousness of the presently claimed invention. Overlapping ranges have been held to be a *prima facie* case of obviousness, see MPEP § 2144.05.

Concerning the instant claim language of “excelling in caulking properties”, because the prior art teaches an overlapping alloy composition, processed in a substantially similar manner, then substantially the same properties, such as caulking properties, are also expected to result (see also above discussion).

When the Examiner has established a *prima facie* obviousness, the burden then shifts to the applicant to rebut. *In re Dillon*, 919 F.2d 688, 692, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990) (en banc). Rebuttal may take the form of “a comparison of test data showing that the claimed compositions possess unexpectedly improved properties... that the prior art does not have, that

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the prior art is so deficient that there is no motivation to make what might otherwise appear to be obvious changes, or any other argument.. that is pertinent.” Id. at 692-93; USPQ2d 1901.

Applicant has not clearly shown specific unexpected results with respect to the prior art of record or criticality of the instant claimed range (wherein said results must be fully commensurate in scope with the instantly claimed ranges, etc. see MPEP 716.02 d).

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bekki et al (US 6,716,390).

Bekki teaches an aluminum alloy extruded material comprising (in weight%): 2.6-5% Si, 0.15-0.3% Mg, 0.3-2% Cu, 0.05-1% Mn, 0.2-1.5% Fe, 0.2-2.5% Zn, 0.005-0.1% Cr, and 0.005-0.05% Ti (column 10 claim 1, etc.), which overlaps the presently claimed ranges of Si, Mg, Cu, Fe, Mn, and Cr.

Concerning the instant claim language of “excelling in caulking properties”, the examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). “When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Because the prior art teaches a substantially overlapping alloy composition, processed in a substantially similar manner, then substantially the same properties, such as caulking properties, are also expected to result.

Overlapping ranges have been held to be a prima facie case of obviousness, see MPEP § 2144.05. It would have been obvious to one of ordinary skill in the art to select any portion of the range, including the claimed range, from the broader range disclosed in the prior art, because the prior art finds that said composition in the entire disclosed range has a suitable utility. Because Bekki teaches an overlapping alloying range, it is held that Bekki has created a prima facie case of obviousness of the presently claimed invention.

Response to Amendment/Arguments

6. In the response filed on September 12, 2006, applicant amended claims 1 and 2 and submitted various arguments traversing the rejections of record. The examiner agrees that no new matter has been added.

7. In a telephone conversation with attorney Bryant Wade on Wednesday October 25, 2006, the examiner and applicant's attorney discussed the support for "0.22" in instant amended claims 1 and 2. Said value comes from the maximum Mg and Mn ranges in the claim:
 $(0.79)*(0.15)+(0.26)*(0.39)=0.22$. The examiner agrees that 0.79 and 0.26 are supported as set forth in applicant's response.

8. The prior art of Bekki has been reapplied to the instant claims, as said claims have been broadened to include 0.01-0.50% Cu.

9. Applicant's argument that the present invention is allowable over the prior art of record because the Mg and Mn content is critical to achieving superior (high) critical upsetting ratio, and that Mn is critical to achieving good resistance to intergranular corrosion has not been found persuasive for reasons a), b), and c) below.

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10. Concerning reason a), to be of probative value, any objective evidence should be supported by actual proof, and set forth in an affidavit or declaration. See MPEP 716.01(c).

Objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes evidence of unexpected results, commercial success, solution of a long-felt need, inoperability of the prior art, invention before the date of the reference, and allegations that the author(s) of the prior art derived the disclosed subject matter from the applicant. See, for example, *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984). See MPEP 716.01(c).

11. Concerning reason b), an unexpected critical upsetting ratio has not clearly been shown. Though data points 11-15 are arbitrarily taken from the ranges taught by JP'769, said data points are not fully representative/commensurate in scope with the prior art's teaching, see MPEP 716.02 (d). Evidence of unexpected properties may be in the form of a direct or indirect comparison of the claimed invention with the closest prior art which is commensurate in scope with the claims. See *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980) and MPEP §716.02(d) - § 716.02(e). To establish unexpected results over a claimed range, applicants should compare a sufficient number of tests both inside and outside the claimed range to show the criticality of the claimed range. *In re Hill*, 284 F.2d 955, 128 USPQ 197 (CCPA 1960). Additionally, compositions 8 and 9 of the invention meet the instant composition and critical upsetting ratio limitations, but are outside the instant Mg/Mn equation. It is unclear that the presently claimed Mg/Mn equation is critical to obtaining a critical upsetting ratio >43%.

12. Concerning reason c), applicant's argument that the present invention is allowable over the prior art of record because alloys 1-6, 8, and 9 compared to 11-15 belong to different groups

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has not been found persuasive. Though said alloy may be linearly approximated with different trend lines, applicant has not shown specific evidence of unexpected results fully commensurate in scope with the claimed invention as compared to the closest prior art (see also arguments above). An affidavit or declaration under 37 CFR 1.132 must compare the claimed subject matter with the closest prior art to be effective to rebut a prima facie case of obviousness. In re Burckel, 592 F.2d 1175, 201 USPQ 67 (CCPA 1979), see also MPEP 716.02(e). "A comparison of the claimed invention with the disclosure of each cited reference to determine the number of claim limitations in common with each reference, bearing in mind the relative importance of particular limitations, will usually yield the closest single prior art reference." In re Merchant, 575 F.2d 865, 868, 197 USPQ 785, 787 (CCPA 1978) (emphasis in original). Where the comparison is not identical with the reference disclosure, deviations therefrom should be explained, In re Finley, 174 F.2d 130, 81 USPQ 383 (CCPA 1949), and if not explained should be noted and evaluated, and if significant, explanation should be required. In re Armstrong, 280 F.2d 132, 126 USPQ 281 (CCPA 1960).

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM

October 26, 2006


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